

Notice of Allowability

Application No.

10/005,166

Examiner

Hung H. Lam

Applicant(s)

MIHELIC, JOE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the supplemental amendment filed on 11/03/06.
2. ☒ The allowed claim(s) is/are 1-3, 14-19 and 4-9 (the claims are renumbered as 1-15, respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/05/06 and 11/03/06 have been entered.

Response to Amendment

2. The amendments, filed on 10/05/06 and 11/03/06, have been entered and made of record. The Applicants have canceled claims 10-13.

Election/Restrictions

3. Claims 4-9 are allowable. The restriction requirement species, as set forth in the Office action mailed on 05/13/05, has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable claim.**

In view of the above noted withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the

claims of the instant application. Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Allowable Subject Matter

4. Claims 1-9 and 14-19 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 1 the prior art of record neither anticipates nor renders obvious, "a data acquisition apparatus for scanning a surface to record digital images thereof and to record data for determining three-dimensional coordinates thereof, said apparatus comprising:

at least one camera for recording said digital images of said surface, said camera having an optical axis;

at least two lasers for marking points in said digital images for determining said three dimensional coordinates of said surface, said lasers having optical axes, said optical axes of said camera and said lasers being essentially parallel;

an essentially horizontal rail for mounting said camera and said lasers, **said camera being mounted between said lasers**, and said rail having means for horizontally shifting said camera and said lasers along said rail, **the positions of said lasers being adjustable relative to the camera, via said means for horizontally shifting said camera and said lasers, depending on the scale of the surface to be recorded;**

at least one essentially vertical post attached to said rail by means for rotating and horizontally shifting said rail, said post having means for vertically shifting said rail;

at least one moveable platform for mounting said posts and for positioning said camera and said lasers proximate to said surface; and, data acquisition equipment for adjusting said platforms, said posts, said rail, said camera, and said lasers; for recording position data for said platforms, said posts, said rail, said camera, and said lasers; and, for recording said digital images."

Regarding claim 4 the prior art of record neither anticipates nor renders obvious, "a data acquisition system for generating a three-dimensional data model of a surface, said system comprising:

a data acquisition apparatus for scanning said surface to record digital images thereof and to record data for determining three-dimensional coordinates thereof, said data acquisition apparatus comprising:

at least one camera for recording said digital images of said surface, said camera having an optical axis;

at least two lasers for marking points in said digital images for determining said three-dimensional coordinates of said surface, said lasers having optical axes, said optical axes of said camera and said lasers being essentially parallel;

an essentially horizontal rail for mounting said camera and said lasers, **said camera being mounted between said lasers**, and said rail having means for horizontally shifting said camera and said lasers along said rail, **the positions of said lasers being adjustable relative**

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to the camera, via said means for horizontally shifting said camera and said lasers, depending on the scale of the surface to be recorded;

at least one essentially vertical post attached to said rail by means for rotating and horizontally shifting said rail, said post having means for vertically shifting said rail;

at least one moveable platform for mounting said posts and for positioning said camera and said lasers proximate to said surface; and,

data acquisition equipment for adjusting said platforms, said posts, said rail, said camera, and said lasers; for recording position data for said platforms, said posts, said rail, said camera, and said lasers; and, for recording said digital images; and,

a data acquisition computer system in communication with said data acquisition apparatus, said data acquisition computer system comprising:

means for adjusting said data acquisition apparatus in accordance with user instructions;

means for receiving said position data and said digital images from said data acquisition apparatus;

means for determining three-dimensional coordinates of said surface from said position data and said digital images;

means for associating said digital images with said three-dimensional coordinates to produce said three-dimensional data model;

memory for storing said position data, said digital images, said three-dimensional coordinates, and said three-dimensional data model;

a display for presenting said three-dimensional data model to said user; and,

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an input device for accepting user instructions from said user for adjusting said data acquisition apparatus.”

Regarding claims 2-3,14-19 and 5-9, the claims are allowed as being dependent of claim 1 and 4, respectively.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, NGOC YEN VU can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HL
11/05/06


NGOC-YEN VU
SUPERVISORY PATENT EXAMINER